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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,121	07/11/2003	Todd E. Kookan	LEEE 200320	3001
7590 05/17/2005 FAY, SHARPE, FAGAN, MINNICH & McKEE, LLP Seventh Floor 1100 Superior Avenue Cleveland, OH 44114-2579			EXAMINER WRIGHT, INGRID D	
			ART UNIT 2835	PAPER NUMBER

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,121

Applicant(s)

KOOKEN ET AL.

Examiner

Ingrid Wright

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7-11-2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7-11-2003.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date 5/10/05.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Specie I, claims 1-10, directed to heat dissipation platform comprising a conductive plate having a plurality of parallel heat pipes located between the surfaces of said conductive plate.

Specie II, claims 11-14, directed to heat dissipation platform comprising a conductive plate having a plurality of parallel heat pipes located on one of the surfaces of said conductive plate.

During a telephone conversation with **Mr Jonathan Withrow, Reg No. 54548** on 5/10/05 a provisional election was made without traverse to prosecute the invention of Specie 1, claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claims 6-8 are rejected under 35 U. S. C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and /or use the invention.

As best understood, regarding claims 6, 7 and 8, a plurality of parallel heat pipes meet a limitation of the independent claim 1. Since the dependent claims 6, 7 and 8 must meet all the limitations of the independent claim 1, claims 6, 7 and 8 should meet the limitation of "parallel surfaces and a plurality of parallel heat pipes located between said surfaces as shown in Fig. 3 and 4. With respect to claims 6, 7 and 8, the limitation "parallel heat pipes that are mounted in grooves in said first surface," is not enabled or shown in the disclosed figures. Thus, a disclosure on how the plurality of heat pipes mounted in grooves in said first surface is missing.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As best understood, claims 9 and 10 recite the limitation, "said first section" in line 1 of claims 9 and 10. There is insufficient antecedent basis for this limitation in claims 9 and 10.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,3,4,5,9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) (Fig. 2) in view of Patel (US PN 6163073).

With respect to claim 1, AAPA teaches (Fig. 2) a heat dissipation platform having output switches (Q1, Q2), said platform (34) comprising a conductive plate (36) with first and second generally parallel surfaces and said switches (Q1, Q2) being mounted on said first surface and closely spaced from each other in a given direction.

AAPA does not teach a plurality of parallel heat pipes located between said surfaces and extending in a given direction.

Patel teaches (Fig. 2) a heat dissipation platform comprising a plurality of parallel heat pipes (32,34,36,38,40) located between the surfaces of said platform and extending in a given direction (Column 2, Lines 22-25) for enhancing heat transfer.

Since the inventions of AAPA and of Patel are from the same field of endeavor (cooling) the purpose of the plurality of parallel heat pipes of Patel would be recognized in the invention of AAPA.

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It would have been obvious to a person of ordinary skill in the cooling art at the time the invention was made to place the plurality of heat pipes as taught by Patel between the first and second generally parallel surfaces of AAPA, in order to provide more efficient heat transfer.

With respect to claim 2, AAPA teaches (Fig. 2) a heat sink (30, 32) of high heat conductivity material with a thin mounting plate (36) on said second surface and integral, parallel fins (38) protruding from said mounting plate (36) in a direction away from said second surface and extending in said given direction.

With respect to claims 3,4 AAPA teaches (Fig. 2) a fan (25) mounted on said platform to blow air toward said second surface.

With respect to claim 5, AAPA (Fig. 2) teaches a heat dissipation platform wherein one of said switches (Q1) is mounted at a first location on said first surface and a second of said switches (Q2) is mounted at a second location on said first surface and a first fan (40) blowing air toward said second surface at said first location except for a second fan blowing air toward said second surface at said second location. It would have been obvious to a person of ordinary skill in the cooling art at the time the invention was made to add an additional fan, in order to improve heat transfer, since it has been held that a mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

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With respect to claims 9 and 10 Patel, as best understood, teaches (Fig. 2) parallel heat pipes (Column 2, Lines 22-25) adjacent the first surface.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Lieu (US PN 6827136 B2), Lee et al. (US PN 6745824 B2), Tadayon et al. (US PN 6877318 B2), Konstad (US PN 6407916 B1), Oikawa et al. (US PN 6778394 B2), Mok (US PN 6681840 B1), Ishikawa (6650540 B2), Conte (US PN 5355942), Chen (US2002/0084062 A1), and Chang (US 6621698 B2) show the general state of the art regarding heat sink, heat pipe, and conduction plate assembly configurations.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ingrid Wright whose telephone number is (571) 272-8392. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2800, ext 35. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IDW



ANATOLY VORTMAN
PRIMARY EXAMINER